On Zygaena (Mesembrynus*) graslini Lederer near Tel Aviv in Israel (Lepidoptera, Zygaenidae)

By HUGO REISS and GÜNTHER REISS, Stuttgart

In the year 1932 Hugo Reiss (1932) wrote on Zygaena graslini Lederer and its range in Syria, Mesopotamia and Asia Minor, and figured the nominate race from Beirut, Lebanon. The ssp. pfeifferi Reiss from Bscharre, Lebanon, 1600-1850m, 15-30.vi.1931, leg. E. Pfeiffer & H. Kulzer, Munich, the ssp. kulzeri Reiss from Zebdani, Anti Lebanon, 1100m, 29.iv.-17.v.1931, leg. H. Kulzer, Munich, and the ssp. rebeli Reiss from the Yüksek Dagh, Amanus Mts., beginning to the middle of April, 1932, leg. native collectors, were also described and figured. Paratypes of all the above mentioned races are in coll. Reiss and have been compared with the new subspecies described below. As the name rebeli Reiss is preoccupied, it was replaced by rebeliana Reiss & Tremewan (1964). Z. graslini was placed in the subgenus Zugaena Fabricius by Reiss (1933) and Reiss & Tremewan (1967).

We acquired from Mr Heinz Czipka, Fürth, Odenwald, $3_{\vec{O}}$, $2 \downarrow \downarrow \phi$ of a graslini race, labelled Israel, Nir Elijahu Kibbuz, 100m, 25.iii.-9.iv.1969, leg. Czipka. The locality lies near Tel Aviv. From the same locality and with the same data Mr Czipka sent us a further $26 \stackrel{\circ}{\circ} \stackrel{\circ}{\circ}, 3 \stackrel{\circ}{\circ} \stackrel{\circ}{\circ}$, so that we have a total of $29 \stackrel{\circ}{,} 3, 5 \stackrel{\circ}{,} 9$ before us. The low elevation of the biotope is rather significant when compared with the early flight period.

The wingspan is as follows: 33.30 mm, 99.26-28.5 mm. In the males the antennae are more heavily clubbed than in the females. The body is blue-black, lightly haired. The legs are likewise blue-black, the femur lightly haired, the tibia in part dirty yellow. The middle spurs on the hind tibia are absent. In fresh specimens the red coloration of the forewing spots is somewhat more fiery and warmer than in the described races. An essential characteristic is the distinct enlargement of the forewing spots, especially the middle spots 3 and 4, which in $21 \triangleleft \triangleleft , 5 \supsetneq \Diamond$, are

EXPLANATION OF PLATE

Fig. 1. Zygaena graslini czipkai ssp. nov., Holotype ..., wingspan 27 mm.

- Fig. 2. Zgraslini czipkai ssp. nov., Allotype Q, wingspan 28-5 mm.
 Fig. 3. Z. graslini czipkai ssp. nov., Allotype Q, wingspan 28 mm.
 Fig. 4. Z. occitanica albarracinensis Reiss & Reiss, Holotype J, wingspan 25 mm.
- Fig. 5. Z. occitanica albarracinensis Reiss & Reiss, Allotype 4, wingspan 31 mm.

Fig. 6. Z. occitanica albarracinensis Reiss & Reiss, Paratype 3, wingspan 25 mm.

Fig. 7. Z. trifolii mideltica Reiss & Reiss, Holotype 3, wingspan 29 mm.

Fig. 8. Z. trifolii mideltica Reiss & Reiss. Allotype ♀. wingspan 30 mm. Fig. 9. Z. trifolii mideltica Reiss & Reiss, Paratype ♂. wingspan 28.5 mm. Fig. 10. Z. trifolii mideltica Reiss & Reiss, Paratype ♀. wingspan 32 mm.

N.B.-Dr Günther Reiss and his wife found a few specimens of Z. occitanica albarracinensis Reiss & Reiss in the type locality in 1970.

*Zygaena problematica Naumann (1966), described from Namrun, Cilician Taurus, Turkey, was placed next to Z. graslini Lederer. Alberti (1958) placed graslini in the subgenus Mesembrynus Hübner. More recently, Naumann (1970) has reared the larva on Eryngium planum and also placed the species in this subgenus.

ENTOMOLOGIST'S RECORD, VOL. 83

15/1/71

broadly confluent and cover a much larger area of the forewing. There are no specimens in which spots 3 and 4 are separated by the blue-black ground colour. Also the confluent spots 1 and 2 tend to be confluent with spots 3 and 4; in $8 \circ \circ$, $3 \neq \circ$ spot 1 is extended along the costa as far as spot 3, with which it is joined, while spot 2 in 733, 19 is broadened towards the inner margin, forming spot 2a. Spot 5 is generally larger and nearer to the confluent spots 3 and 4. Spot 6 is present in all specimens, extends towards the termen, and is confluent with spot 5. The ab. confluens Oberthür, with spots 1, 2, 3 and 4 broadly confluent, is represented by 2 3 d, 1 . This form was first described by Oberthür, not Dziurzynski, from Akbès, Syria, the type-specimen being figured by Tremewan (1961). On the somewhat matter underside of the forewings, the spots generally form a strong red suffusion. The red of the hindwings is somewhat less fiery than that in the forewing spots. In 5 d d, 1 q, the hindwings have a narrow but distinct blue-black border, especially at the apex; in the remaining specimens the hindwing border is absent. The fringes are blueblack.

This race is named after Mr H. Czipka: czipkai ssp. nov. The holotype \mathcal{G} and allotype \mathcal{Q} with the above quoted data in coll. Reiss; paratypes with the same data in coll. Czipka and coll. Reiss.

The σ , labelled Haifa, coll. Pietsch, in coll. Reiss, that was recorded in 1932 (Reiss, 1932) has similar enlarged forewing spots and appears to be referable to *czipkai* ssp. nov.

REFERENCES

Alberti, B., 1958. Über den stammesgeschichtlichen Aufbau der Gattung Zygaena F. und ihrer Vorstufen (Insecta, Lepidoptera). Mitt. zool. Mus. Berl., 34(2): 245-396.

-, 1959. Ibidem. Mitt. zool Mus. Berl., 35 (1): 203-242.

Naumann, C., 1966. Zygaena (Subg. Zygaena F.) problematica n. sp. Z. wien. ent. Ges., 51: 10-19, figs. 1-3, pl. 1, figs. A1-A4, B. C. D.

- —, 1970. Bemerkungen zur Biologie und zur systematischen Stellung von Zygaena graslini Lederer, 1855 (Lep., Zygaenidae). Bonn. zool. Beitr., 21: 133-136, figs. 1A-1F.
- Reiss, H., 1930. In Seitz, die Gross-Schmetterlinge der Erde, Supplement, 2: 20, pl. 2f.
- -----, 1933. Ibidem, 2: 259, 260, pl. 16i.
 - —, 1932. Altes und Neues über Zygaena corycia Stgr., Z. graslini Led., Z. cambysea Led. und Z. cuvieri Boisd (Lep.). Int. ent. Z., 26: 269-280, 1 pl.
 - -, 1935. Neues über asiatische Zygaenen in besonderen die Zygaenen-Fauna von Ak-Schehir in Kleinasien. Int. ent. Z., **29**: 151.
- Reiss, H. and Tremewan, W. G., 1964. New synonymy in the Genus Zygaena Fabricius (Lepidoptera: Zygaenidae). Entomologist's Rec., **76**: 133.

—, 1967. A systematic Catalogue of the Genus Zygaena Fabricius (Lepidoptera: Zygaenidae). Series ent., 3. Dr W. Junk, Publishers, The Hague.

Tremewan, W. G., 1961. A Catalogue of the types and other specimens in the British Museum (Natural History) of the Genus Zygaena Fabricius (Lepidoptera: Zygaenidae). Bull. Brit. Mus. (nat. Hist.) Ent., 10 (7): 271, pl. 52, fig. 33.

Address of the authors: Hugo Reiss, 7 Stuttgart 1, Traubenstrasse 15 BI. Dr Günther Reiss, 7 Stuttgart-Vaihingen, Barchet 23.